

AMENDMENT TO THE CLAIMS:

Replace the claims with the following rewritten listing:

1. (Original) Device for the detection of seat occupancy, comprising
a sensing layer associated to a seating surface of a seat, said sensing layer having at least one electrical property varying in response to a pressure and/or deformation applied to said sensing layer,
a plurality of electrodes, said electrodes being associated to said sensing layer only at a periphery of a sensing area, and
a control unit connected to said electrodes, said control unit comprising means for evaluating a pressure profile acting on said sensing layer by determining said at least one electrical property between pairs of electrodes selected from said plurality of electrodes.
2. (Original) Device according to claim 1, wherein said control unit comprises means for evaluating said pressure profile using a tomography imaging method.
3. (Currently Amended) Device according to ~~any one of claims 1 to 2~~claim 1, wherein said at least one electrical property comprises the electrical impedance of said sensing layer.
4. (Currently Amended) Device according to ~~any one of claims 1 to 3~~claim 1, wherein said at least one electrical property comprises the electrical resistance or conductance of said sensing layer.
5. (Currently Amended) Device according to ~~any one of claims 1 to 4~~claim 1, wherein said sensing layer comprises a rubber material having an internal electrical impedance which varies in dependence with a deformation of the material.
6. (Currently Amended) Device according to ~~any one of claims 1 to 5~~claim 1, wherein said sensing layer comprises a foam material having an internal electrical impedance which varies in dependence with a deformation of the material.

7. (Currently Amended) Device according to ~~any one of claims 1 to 6~~claim 1, wherein
said sensing layer comprises
a first carrier foil having at least one surface covered with a resistance material
a second carrier foil having at least one surface comprising a plurality of areas covered
with a conductive material
said first and second carrier foil being arranged at a certain distance from each other
by means of a spacer material such that said areas covered with conductive material of
said second carrier foil face said coating of resistance material of said first carrier foil.
8. (Original) Device according to claim 7, wherein said resistance material is printed
onto said at least one surface of said first carrier foil.
9. (Currently Amended) Device according to ~~any one of claims 7 to 8~~claim 7, wherein
said conductive material is printed in said areas onto said at least one surface of said
second carrier foil.
10. (Currently Amended) Device according to ~~any one of claims 7 to 9~~, wherein said
spacer material comprises an adhesive, which is arranged in a plurality of localized
areas between said first and second carrier foil.
11. (Currently Amended) Device according to ~~any one of claims 7 to 10~~claim 7, wherein
said spacer material comprises a printable adhesive, which is printed in a plurality of
localized areas onto one of said carrier foils.
12. (Currently Amended) Method for the detection of seat occupancy, said method
employing a sensing layer associated to a seating surface of a seat, said sensing layer
having at least one electrical property varying in response to a pressure and/or
deformation applied to said sensing layer, said method comprising ~~the steps of~~:
 - a) ~~determining~~ said at least one electrical property of said sensing layer between pairs
of different locations situated only at a periphery of a sensing area, and
 - b) ~~evaluating~~ a pressure profile acting on said sensing layer based on the determined
electrical property values.

13. (Original) Method according to claim 12, wherein said step of evaluating said pressure profile uses a tomography imaging method.